LOGSHEET FOR FIELD CHANGES TO CONTROLLED DOCUMENTS[1]

| Change Number | Date | Document Number | Document Title | Section/Page Modified | Description Of Change(s) | Responsible Manager Approval | RSH&Q Approval | Radiological Engineering Approval | Quality Assurance Approval | Completion Of ADM 2.01 Checklist | Completion Of SES/USQ Checklist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 7/20/98 | RF/RMRS-98-208 | ALARA JOB REVIEW TRENCH 1 | Page 13 of 15 | reduced contamination level suspension guide to allow for transuranics. | | NA | 7/31/98 | 7.31.98 | NA | NA |
| | | | | | Clarified Airborne Radioactivity Suspension guide | | | | | | |
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[1] Affixed signatures indicate that Operations Review Committee (ORC) and/or Independent Safety Reviews are NOT applicable because Scope and Fundamental Technical Specifications were NOT changed. Also, related documents affected by the change(s) were modified accordingly.

Contamination Areas

A limit of 100,000 dpm/100 $cm^2$ removable beta contamination limit is set for contamination areas, value obtained from Reference [1], Table 2-2.

Field Change 3

A limit of 2,000 dpm/100 $cm^2$ removable alpha contamination limit is set for contamination areas, based on Reference [1], Table 2-2 Transuranic values, since Pu and/or Am may be encountered.

Radiological control technicians should make note of the alpha to beta ratios present during contamination surveys. The approximate alpha:beta ratio for DU is 1:2. As U-235 is enriched, the specific alpha activity increases while the U-238 progeny beta activity decreases. For instance, the alpha:beta ratio at 10% U-235 enrichment is 12.5:2.0 (Reference [3], Table 5). Alpha:beta ratios outside of that predicted may be an indicator of enriched uranium or transuranics and will be investigated promptly if identified. If transuranic isotopes are confirmed, the RWP suspension guide limits will be revised to reflect the applicable limits.

Airborne Radioactivity Level SGL:

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A limit of 10 DAC (calculated after a 72-hr decay period) will be set when work is performed in supplied breathing air respiratory protection.

A limit of 10 DAC (calculated after a 72-hr decay period) will be set when air purifying full-face respirators are worn.

A limit of 0.1 DAC (calculated after a 72-hr decay period) when no respiratory protection is worn.

NOTE: DAC value based on U-238 Class Y ($2 \times 10^{-11}$ uCi/ml), Reference *10 CFR 835, Occupational Radiation Protection, Appendix A - Derived Air Concentrations (DAC) for Controlling Radiation Exposure to Workers at DOE Facilities.* Other, more restrictive, DAC values (e.g. $^{239}Pu$, $^{232}Th$) may be applied at Radiological Engineering's direction on the basis of sample analysis.

Radiation Exposure Rate SGL:

10 mrad/hr gamma at 30 cm from drum or debris, this limit will allow for continued operations and investigations should an anomaly be encountered while still adhering to the ALARA philosophy.

Attempts will be made to limit the general area dose rate to 2 mrad/hr.

Should dose rates in areas where materials accumulate such as at the SIP or staging area for radioactive material shipment exceed 5 mrem/hr then these localized areas will be controlled as radiation area and the dose rate of these areas will be limited to 10 mrem/hr.

Field Change 2

1000 mrad/hr beta on contact with materials, drums or debris. This value is sufficiently above the maximum level identified in Table 2 *Beta Surface Dose Rates From Equilibrium Thickness of Uranium Metal and Compounds* to account for expected variations with radiation survey instrumentation, source geometry and low enough to implement the ALARA

philosophy.

Work in progress neutron surveys are not required based on source term. Neutron surveys will be performed on drums and debris that exceed the gamma radiation exposure rate SGL.

9. Walk-down and dry-run of processes using applicable procedures.

A walk down of the project work sequence and a dry-run of the processes at the excavation site is required. This is to ensure that problems are identified and resolved prior to excavating the trench soil.

Throughout the project, then Project Manager (or designee) and Radiation Safety Supervision shall routinely evaluate the effectiveness of ALARA work practices and modify work practices based on lessons learned as appropriate.